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AUTHOR Mertens, Donna M.
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ABSTRACT

Sixty-nine employers of researchers and evaluators participated in a market research study conducted by the Department of Educational Foundations and Research at Gallaudet University. The sample included consulting firms, government agencies, professional associations, and other educational agencies in the greater Washington, D.C. area, as well as residential schools for the deaf from around the country. A telephone interview inquired about: (1) the nature of the organization; (2) the kinds of skills needed; (3) respondent's background; (4) interest in becoming an internship site; and (5) future job prospects. Forty-eight of these employers also returned a Skill Rating Form distributed by mail. While each type of organization emphasized certain skills, the employers agreed on a generic set of skills possessed by potentially employable researcher/evaluators including traditional research methodology, evaluation, administration/communication, statistical analysis, and computer usage. Most (59%) thought that content specialty skills could be picked up on the job. Psychometric skills were important primarily in educational settings. Of the 69 employers, 62 expressed interest in becoming an internship site, and they were very receptive to hiring a hearing-impaired intern. Reports of job prospects were somewhat optimistic for consulting firms, private corporations, and government agencies. An appendix includes all survey materials. (LPG)

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CAREER OPPORTUNITIES IN RESEARCH AND EVALUATION RELATED TO HEARING IMPAIRED PERSONS

Donna M. Mertens
Gallaudet University

Paper presented at the 1987 American Educational Research Association meeting, Washington, DC

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CAREER OPPORTUNITIES IN RESEARCH AND EVALUATION RELATED TO HEARING IMPAIRED PERSONS

Donna M. Mertens
Gallaudet University
800 Florida Ave., N.E.
Washington D.C. 20002
202 651-5202

What are the job prospects for hearing impaired individuals trained in research and evaluation? What are the job prospects for hearing individuals who are trained in research and evaluation of hearing impaired populations? What skills should be included in a research and evaluation training program? What other factors need to be considered in a research and evaluation program, such as internship experiences? The answers to these questions depend on the source and scope of the information base. A variety of sources have been tapped in an attempt to give teachers in this field guidance in the design of their programs. Numerous lists of competencies have been published that were based on the logical analysis of research and evaluation tasks, as well as on the experiences and informed opinions of the early leaders in the field of evaluation (Payne, 1974; Sanders, 1979; Scriven, 1974; Stufflebeam et al., 1971; Worthen, 1978).

A second approach to determining what should be taught in research and evaluation training programs is to examine the course syllabi that are used in such coursework. While evaluation training programs tend to be in schools of education or psychology, they can also be found in specific disciplines such as social work, health, and management settings (May, Fleischer, Scheirer, & Cox, 1986). Davis (1986a) edited a volume that contains an analysis of evaluation course syllabi from four disciplinary perspectives-education, psychology, health, and business and management-as well as from an interdisciplinary point of view. She reported that specific disciplines differ in their curricular emphasis, however, there is increasing agreement about the general topics evaluation courses should address (Davis, 1986b). Much valuable information can be obtained from this approach. However, additional information is necessary to determine the correspondence between curriculum content and the job market, as well as to identify variables related to internships and future job placement prospects.

I wish to acknowledge the important contribution that Steve Wolk, Judy Harrison, Kate Tobin, and Judy Robbins played in the data collection effort. The members of the Department of Educational Foundations and Research also made an important contribution by their advice on the design of the study. Finally, much appreciation is expressed for the efforts of the participants in the study who gave willingly of their time and ideas.

PAPER PRESENTED AT THE 1987 AMERICAN EDUCATIONAL RESEARCH ASSOCIATION MEETING, WASHINGTON, D.C.

Several researchers have investigated the skills that evaluators and their employers report as being necessary for successful conduct of research and evaluation studies. Two studies used this method to examine skills needed within the context of educational evaluations. Maryak, Gray, Mehrens, & Lezotte (1979) surveyed members of the American Educational Research Association's Division H who were primarily employed in educational settings. Worthen (1975) interviewed leaders of educational agencies that employ evaluators. Anderson and Ball (1979) surveyed a group of experts in evaluation from the fields of education, health and social-action programs who were asked to rate the importance of a list of content areas and skills. Anderson and Ball reported their overall ratings, but they did not break down their results to reflect differences of opinion by the respondent's field of expertise.

The present study was undertaken to determine the views of employers from a variety of job placement settings and disciplinary areas concerning the critical skills for the research and evaluation profession, implications for training, and future job prospects. Several assumptions guided the design of this study. First, employers of researchers and evaluators have a valuable contribution to make in terms of identifying the skills that are needed by practicing professionals in the field. Second, a core of skills exists across disciplines, with particular emphasis within specific disciplines. Thus, the views of employers should be examined within the context of the type of setting in which the evaluation and research occurs. Third, evaluators use the tools of research along with supplementary skills that are needed to fulfill the special requirements of evaluation work. Fourth, individuals who are trained in evaluation are often called upon to function in the role of researcher, depending on the changing demands of the work environment. And, fifth, evaluation courses can be taught from an interdisciplinary perspective (See Conner, 1986).

In the current study, the Department of Educational Foundations and Research at Gallaudet University conducted a market research study that was used as a basis for the development of a degree program in research and evaluation that is consistent with the existing job market. The general approach of the study was to survey potential employers of the program's graduates to determine current staffing patterns, skills needed, potential internship placements, and anticipated job openings. Will the results be of limited value because of Gallaudet's mission to serve the hearing impaired population? Three factors contribute to the generalizability of the findings. First, with the increased implementation of mainstreaming in colleges and universities, it is increasingly likely that programs throughout the country will be serving students with some type of handicapping condition, such as hearing impairment. Second, one issue addressed in this study was the conduct of research and

evaluation with hearing impaired subjects, which would have parallel implications for other researchers and evaluators who are being trained to work with special needs populations. Third, employers were asked about researchers and evaluators in general, as well as particularly about hearing impaired individuals.

METHODOLOGY

Subjects. The subjects in the study were potential employers of graduates of a research and evaluation program who were selected from five categories: consulting firms (including private corporations), government agencies, professional associations, residential schools for the deaf, and other educational agencies. Large residential schools for the deaf were added to the list because Gallaudet serves both hearing and hearing impaired students. The initial phase of the study involved identifying those agencies that actually employed evaluation research personnel to serve as the sample. Except for the residential schools, the search focused on opportunities in the greater Washington D.C. area.

Organizations that possibly employ evaluation research personnel were identified by using the Evaluation Network's vacancy list and list of organizations that employ evaluation researchers; the C&P Yellow Pages listing of management consulting firms; the listing of professional associations in the greater Washington D.C. area; directors of educational research in the school systems in Washington D.C. and in surrounding counties; State Department of Education representatives in MD and VA; Gallaudet's Center for Assessment and Demographic Studies' listing of large residential schools; and a listing of federal agencies that use evaluations. A computerized database was developed of the 288 organizations that potentially employ evaluation research personnel.

In order to identify organizations that actually do hire evaluation research personnel, a short questionnaire (see Gallaudet College Response Card in the appendix) was sent in the Spring of 1986 to these organizations. A follow-up mailing was sent to organizations that did not respond to the first mailing within three weeks. The purpose of the first questionnaire was to determine if the organizations hired evaluators or researchers, and if so, if they would be willing to participate in a follow-up interview.

The results of this first survey are presented in Table 1. From the initial list of 288 names, a final sample was obtained of 81 (28 percent) organizations that hire evaluation research personnel and who indicated a willingness to participate in the follow-up interview. The other 207 names can be accounted for as being undeliverable (11 percent), not hiring evaluation research personnel (12 percent), or not responding to the mailing (49

percent). A 20 percent random sample of nonrespondents was contacted by telephone. The results of this follow-up are presented in Table 2. The nonrespondents are primarily from consulting firms and professional associations (76 percent). Sixty-eight percent of the nonrespondents did not return the questionnaire because they felt it did not apply to them. Given this information, the large nonresponse rate appears to be due primarily to inaccurately identifying the population, rather than to a systematic bias in the nonrespondents.

TABLE 1

FIRST SURVEY OF POTENTIAL EMPLOYERS
OF EVALUATION RESEARCH PERSONNEL

TYPE OF ORGANIZATION	ORIGINAL SAMPLE	UNDELIVER-ABLE	DOES NOT APPLY	NO RESPONSE
Consulting Firm	96	29	4	50
Government Agency	19	0	1	10
Residential School	61	0	7	22
Other Educational Setting	13	0	0	3
Professional Association	99	2	22	57
TOTAL	288	31	34	142

TABLE 2

FOLLOW-UP OF NONRESPONDENTS TO THE FIRST SURVEY

TYPE OF ORGANIZATION	ORIGINAL GROUP	SAMPLE CHOSEN	DOES NOT APPLY	APPLIES BUT REFUSED	APPLIES AND INTERV.
Consulting Firm	50	7	4	2	1
Government Agency	10	1	1	0	0
Residential School	22	6	3	1	2
Other Educational Settings	3	0	0	0	0
Professional Associations	57	14	11	3	0
TOTAL	141	28	19	6	3

TABLE 3

TYPE OF ORGANIZATIONS INCLUDED IN THE SAMPLE OF EMPLOYERS OF EVALUATION RESEARCH PERSONNEL

TYPE OF ORGANIZATION	ORIGINAL SAMPLE	REFUSES INTERVIEW	ACTUAL INTERVIEW	SECOND QUEST-IONAIRE RETURNED
Consulting Firms	13	3	10	3
Government Agencies	8	1	7	6
Residential Schools	32	2	30	20
Other Educational Settings	10	2	9	5
Professional Associations	18	5	13	5
Unknown	0	0	0	9
TOTAL	81	12	69	48

The types of organizations in the sample are displayed in Table 3. Residential schools for the deaf were represented most frequently (40 percent), followed by professional associations (22 percent), consulting firms (16 percent), other educational agencies (12 percent), and government agencies (8 percent). (The other educational agencies included research departments in public schools, State Departments of Education, and university-based research centers.) Twelve of the 81 sample members were later unavailable to be interviewed. Therefore, the actual response rate for the telephone interviews was 85 percent (69 respondents). The individuals who were interviewed were asked to return a form indicating their ratings of skills needed in evaluation research. Forty-eight individuals returned this second form for a response rate of 59 percent on the skill rating form.

The majority of the respondents (62 percent) in the telephone interview were trained in research and/or evaluation methods. The other respondents were either trained in administration/personnel (13 percent), special/deaf education (9 percent), or in particular disciplines such as law, medicine, history, or English. Seventy-one percent of the respondents reported that they were actually doing research or evaluation themselves. These active researchers/evaluators reported an

average of 12.7 years of experience in the field.

Procedures. The procedures for the identification of the sample, development of the database, and the initial survey of the potential employers of evaluation research personnel was described in the previous section. This section includes a description of the procedures used to obtain information from those individuals who confirmed that they did employ evaluation research personnel and were willing to participate in a follow-up interview.

Two questionnaires were developed: one for use in the telephone interview and one for rating possible skills needed in the evaluation research profession (see the appendix). The telephone interview questionnaire was designed to collect the following information:

-The nature of the organization
  -The kind of programs/activities occurring there
  -The kind of work that research/evaluation people do
  -Specific examples of evaluation/research projects

-The kinds of skills needed
  -Whether or not it would be important to be a content specialist, and, if so, in what areas
  -Any additional skills that might be needed

-The respondent's background
  -Whether or not the respondent was trained in research or evaluation, and, if so, the nature of that training
  -Whether or not the respondent was actively doing research or evaluation, and, if so, for how many years

-Interest in participating as an internship site
  -Interest in having an intern
  -Process of establishing an internship
  -Interest in having a hearing impaired intern
  -Need for an interpreter

-Future job prospects
  -Job prospects at their organization
  -Job prospects in the field in general

The telephone interview questionnaire was pilot tested with three organizations similar to those in the sample. The interviews were conducted by three trained interviewers during May and June 1986. Each interview took about 15 to 20 minutes to complete.

Based on evaluation's reliance on traditional research methodologies and the breadth of applications in research and evaluation skills, a broad view was adopted of the potential

career paths for the program's graduates. Therefore, the following description was formulated of the program's intent:

> We are planning a program to train people to be evaluators or researchers who can go into an organization and help them clarify their goals and determine how well they are meeting those goals. They will be trained to use the scientific method to collect and analyze data. These skills could be applied in a variety of settings such as in schools to evaluate an individual's performance as well as at the program level. They can also be applied in market research, in the establishment of new programs or in projects involving survey research. (Taken from the Telephone Interview Questionnaire; see the appendix.)

The skill rating questionnaire was developed based on the following sources that were identified in a computerized search of the literature related to evaluation research skills: Anderson and Ball (1979) surveyed a group of experts in evaluation who were asked to rate the importance of a list of content areas and skills. Fienberg (1980) recommended a focus on learning to use the scientific method for the design of studies and the collection and analysis of data to assess the extent to which programs or activities met specified objectives. Daudistel and Hedderson (1984) recommended a list of topics based on their evaluation program in sociology. Wortman, Cordray, and Reis (1980) based their list of skills on their program at Northwestern University. Maryak, Gray, Mehrens, and Lezotte (1979) surveyed members of the American Educational Research Association's Division H who were primarily employed in educational settings.

The skill rating questionnaire was sent to the same individuals who were later contacted in the telephone interviews. These individuals were reminded during the telephone interview to return the rating form. They were also asked to identify that it came from their organization, if they wanted to. Nine of the skill rating forms were returned without such identification, consequently, they appear in Table 3 as "Unknown" in reference to the type of organization.

RESULTS

Nature of the Organization

A rich picture of the organizations emerged by asking each respondent to describe the organization's activities, the kind of work that evaluators/researchers did there, and specific examples

of projects. The consulting firms included private corporations as well as firms that consulted for federal and state governments, private business, and non-profit and international agencies. The types of work that were done ranged from programming, statistical analysis, data collection, report writing, literature reviews, program evaluation, and conducting surveys, to consultations on research design. Several interesting examples of projects were reported: (1) Surveying the participants of a Department of Agriculture program using program records to determine program usage. (2) Analyzing a company's work force to determine the number of minority employees. (3) Determine the expense of raising a child from infancy to college. (4) Contract with a company to improve productivity and customer satisfaction. (5) Surveys for political candidates to predict election outcomes. And, (6) marketing research for new products (from food to defense).

Government agencies included federal, state and local representatives. At the federal level, respondents were interviewed from agencies that serve a variety of functions such as supporting the U.S. Congress, disseminating government reports, and conducting the census. State representatives were interviewed from the extension service and various educational agencies. At the local level, the respondents represented social service agencies. The types of work that were reported were similar to those reported for consulting firms, with the addition of policy analysis as an important skill area. Examples of projects include: Follow-up of program participants to determine long term program effects, investigating the effect of a change in the drinking age on fatalities, assist developing countries in research/evaluation projects, and determine the appropriate allocation of resources and staff needed to meet goals.

Respondents from professional associations represented such diverse groups as employment security agencies, lawyers, music educators, correctional officers, special educators, physicians, and therapists. Again, the work done by evaluation/research personnel was similar to that reported previously, with an emphasis on surveys of membership. They collected information on such topics as salary levels in the profession, budget allocations, quality of programs, and reactions to new products.

The residential schools for the most part did not employ anyone whose sole responsibility was to conduct research or evaluation. These tasks were seen as either integral in the job description for school personnel or were seen as needed but not sufficiently addressed under the current staffing arrangements. The majority of the respondents described the individual assessments of students that is done by the school psychologist annually as examples of evaluation in their schools. However, most respondents also mentioned evaluations of teachers and house parents' performance, follow-up of graduates, curriculum

TABLE 4: FREQUENCIES FOR EVALUATION/RESEARCH SKILLS

	Essential	Desirable	Not Important	No Answer
RESEARCH METHODS				
Sampling	27	16	2	3
Survey research	31	11	3	3
Questionnaire construction	31	15	0	2
Interviewing skills	17	28	1	2
Content analysis	19	22	4	3
Case studies	8	31	5	4
Task analysis	16	22	6	4
Experimental design	20	19	7	2
Quasi-experimental design	19	17	7	5
Time series design	5	25	14	4
Observational research	13	23	10	2
EVALUATION				
Alternative models for evaluation	29	15	1	3
Setting goals	25	20	1	2
Cost-benefit analysis	15	22	8	3
Grantsmanship	13	21	10	4
Standards for evaluation (ethical/legal)	29	14	3	2
Utilization of evaluation results	36	8	1	3
Planning evaluations	32	12	2	2
Assessment of program implementation	27	14	2	5
Meta-evaluation	2	29	7	10
Politics of evaluation	12	24	9	3
Policy analysis	14	29	3	2
Needs assessment	30	15	1	2
ADMINISTRATION/COMMUNICATION				
Proposal writing	23	22	1	2
Expository skills (writing and speaking)	34	12	1	1
Public relations skills	24	18	4	2
Management skills	28	18	1	1
Technical writing of reports	31	16	0	1
Listening skills	30	16	1	1
Consultations skills	26	20	1	1
STATISTICS/COMPUTER				
Data preparation	27	18	0	3
Construction of data bases	23	18	3	4
Descriptive statistics	31	12	3	2
Inferential statistics	22	21	2	3
Correlation and regression	20	22	4	2
Multivariate statistics	16	24	6	2
Nonparametric statistics	17	21	5	5
Quality control	23	16	5	4
Elementary computer programming	12	25	9	2
Advanced computer programming	2	21	23	2
Use of canned programs	20	21	5	2
Use of micro computer software	16	28	2	2

PSYCHOMETRICS				
Test construction	16	19	8	5
Reliability	26	14	3	5
Validity	26	14	3	5
Application of tests (paper and pencil;situational;performance)	17	18	8	5
Norm and criterion-refernced tests	18	17	8	5
Selecting a measurement instrument	23	14	6	5
Assessing a measurement instrument	22	15	6	5
Interpreting test results	30	7	6	5
Reactive concerns and unobtrusive measures	10	25	7	6

evaluations, and surveys of parents and the deaf community. The work that was mentioned by these respondents matched that described for the other types of organizations, although the emphasis was clearly on assessment at the individual level.

In the other educational agencies, the respondents represented offices of testing, research and evaluation in public schools and on university campuses. The kind of work mirrored that reported in the other organizations, with a greater emphasis on program evaluation. Studies were conducted in such areas as prevention of high school drop outs, training school administrators to design evaluations, measuring minority achievement, building databases of demographic and academic information at the local schools, developing consistent reporting methods, evaluating the gifted and talented program, and conducting research on child development, education and mental health in the area of deafness.

Skills Needed

Like Anderson and Ball (1979), two of the respondents had some difficulty with completing the skill rating form. One indicated that skills are important in particular situations. Some of the skills are needed sometimes, but not all the time. However, when you do need the skill, it is critical. Another respondent was uncomfortable with the conceptual inequality of the items on the rating form. He felt that some of the items represented full courses while others were more individual topics. These caveats should be recognized in the interpretation of the ratings.

The respondents' ratings of the skills needed for research and evaluation are displayed in Table 4. Generally, all of the skills were rated as either essential or desirable by the respondents, thus indicating that the list of skills derived from the literature was "on target". Only advanced computer programming, time series design, observational research, and grantsmanship were rated as "not important" by more than 20 percent of the respondents. Analysis of ratings by type of organization revealed a very consistent response pattern for all of the skill areas except in the psychometrics area. In this area, the rating "not important" was used by representatives of all of the types of organizations except one residential school and all of the other educational agencies. Thus, psychometrics appears to be a skill area that is emphasized more in educational settings than in the other work settings.

Within each work setting and in each discipline, particular skills will receive greater emphasis. For example, Davis (1986b) pointed out that psychological evaluators would emphasize goal attainment scaling and management information systems. Educational evaluators would emphasize curriculum development and

school organization, and business evaluators would emphasize organizational change, market research, and cost benefit analysis. While recognizing these discipline specific skill areas, the skill ratings in the present study indicate that there is a generic set of skills that apply across types of organizations. These include skills in traditional research methodology, evaluation, administration/communication, statistical analysis, and computer usage.

In a paper entitled "Content Specialization and Educational Evaluation: A Necessary Marriage?", Worthen and Sanders (1984) examined the issue: Should an educational evaluator be trained as a content specialist, an evaluation specialist, or some combination of the two? They concluded that evaluation specialists are the best choice to evaluate most educational enterprises. They recognized that content specialization plays an important role in educational evaluation, but it is neither necessary nor desirable in the training of educational evaluators.

The majority of the respondents (59 percent) agreed with Worthen and Sanders conclusion. They felt that general research and evaluation skills would be sufficient and that the person could "learn as they go". Fifteen percent of the respondents felt that some expertise would be necessary in such areas as administration, sign language, audiology, sociology, counseling, the law, economics, agriculture, criminal justice, mathematics, or reading. These respondents also felt that only some of the staff would need to be content specialists. One respondent recognized that the area of needed expertise would change based on what was being funded that year. The remaining respondents (21 percent) felt that expertise would be needed in such areas as engineering, military sciences, government documents, foreign languages, reading, mathematics, deafness, sign language, sociology, health, the law, and finance.

The respondents were asked to add any additional skills that they thought would be needed in their particular setting to conduct evaluation and research studies. Over 60 different skill areas were listed; only a few of which were mentioned more than once. The residential schools' and two of the other educational agencies' representatives stressed that manual communication and knowledge of deafness-related issues would be important. Four of the educational representatives felt that knowledge of the subject area such as reading, mathematics, science, or social studies would be important. In addition, four of the educational representatives reported that experience in an educational setting would be important.

Other areas that were mentioned more than two or three times included: legal issues, health, economics, personnel, finance, agriculture, French, Spanish, human relations skills,

linguistics, counseling, sociology, human development, psychology, audiology, and visual impairments.

Interest in an Internship

Sixty-two of the 69 respondents reported that they would be interested in having an intern work in their organization. The same percentage reported an interest in having an intern who was hearing-impaired. One representative expressed some reservation about having a hearing impaired intern because much of their work is international and requires fluency in a foreign language. However, this representative said that at the entry level there would be appropriate positions for individuals with evaluation research skills that did not require communication in a foreign language. She did indicate that she thought it would be hard to advance at that organization without these skills.

Several important points came out of discussions about the internship process. First, the respondents revealed a very positive attitude toward having a hearing impaired intern. Sample comments included:

"We try to do things better than other people. I know that a lot of deaf people can do a lot on their own."

"We would be eager to do that (hire a hearing impaired intern). We need indepth study of methods such as sampling, aggregating data..."

"We pride ourselves on being eclectic--being able to work with diverse types of people."

The idea of having an intern who was knowledgeable about deafness and research and evaluation appealed to the respondents from the residential schools for the deaf and from various social service agencies. Sample comments included:

"Send 'em up here for practical experience. We really do need someone."

"Deafness doesn't matter. Depends on the nature of the task."

"We work with hearing impaired clients, so it would be a natural."

"More than one would be welcome."

Second, the respondents emphasized the need for prior planning and sufficient support resources, as exemplified by the following comments:

"Hearing status is not important. Availability of an internship

is dependent on the match between the project and the qualifications of the student."

"We would be interested in hiring a hearing impaired intern. I am concerned about communication and not giving the intern a passive role for six months."

"You would need to interview the consultants on staff to determine an appropriate project for them."

"I am concerned about communication and not giving the intern a passive role. You need to allow nine months to formally establish an internship with personnel and get a sponsor to help you push through the paperwork."

"We are very enthusiastic about hiring an intern. We may work out room and board for 20 hours of work a week."

These comments raise several important issues. First, the respondents recognized the communication problems faced by the hearing impaired intern. Except for the residential schools, the majority of the respondents reported that Gallaudet would need to furnish an interpreter to facilitate communication. (The one oral residential school respondent commented that, " They must be able to communicate orally and must promise never to use any sign language.") Second, the respondents emphasized the need to find a match between the organization's work and the skills of the intern. This requires considerable planning and supervision of the internship placements to insure that the experience is meaningful to the student and that the student is making a meaningful contribution to the organization. Daudistel and Hedderson (1984) recommend that the faculty visit the internship site to explain to the agency that the trainees must do research and/or evaluation work, not clerical tasks. The interns need to obtain practical experience in applying research and evaluation skills; they need to collect useful data in the context of an operating program without disrupting normal operations of the program. Third, the respondents seemed eager to learn about working with a hearing impaired person. Therefore, some deaf awareness education might be needed to facilitate the process. Fourth, the issue of paid versus non-paid internships needs to be worked out. Possible source of stipends need to be explored. Fifth, considerable pre-planning time is needed.

Future Job Prospects

In the initial screening questionnaire, respondents were asked to indicate how many staff and consultants they expected to hire in the next three years. This must have been a difficult question for the respondents to answer because 44 percent left it

blank for the number of staff members and 73 percent left it blank for the number of consultants. Of those who provided an answer, 59 percent indicated that they planned to hire at least one staff member, with an average response of 2.6 people and a range between 1 and 15. Although fewer respondents answered the consultant question, 59 percent of those who did also indicated that they planned to hire at least one consultant, with an average response of 3.6 and a range between 1 and 20.

In the telephone interview, respondents were asked to describe their view as to job prospects in their own organization and in the field in general. Their responses provide some insight into why the question of future hirings was so difficult. Basically, the respondents indicated that future hirings were dependent on availability of funding, economic growth, and attrition. Without knowing if there would be funding cut backs or who might be leaving and when, it was difficult for the respondents to specify how many new hires would be needed.

Six of the eleven representatives of professional associations reported that job prospects in their organization were "slim" to "not good". The others said that the chances were "fair" to "good". However, only two of the eleven professional association representatives thought that the job prospects in the field in general were "slim" or "not good". The others indicated that prospects would be good in larger firms, or very good because organizations that serve the public need to be accountable.

Two of the nine consulting firms/private corporations representatives reported that they could not say for certain what the job prospects were because they "fluctuate and are hard to determine". However, five of the other representatives described their situation positively, e.g., "growing", "very likely they will be hiring", "good", "a variety of needs exist", and "changes year to year, but looks good now". Their responses followed a similar pattern with regard to the field in general.

The government agency representatives painted a similarly positive picture, e.g., "20 to 30 jobs a year", "need to expand", "continue to be important to 'tell their story'", "high demand now", and "will be opportunities". They also felt very "bullish" on job prospects in the field in general, seeing "more demand for skills to support programs".

The representatives of the residential schools were about equally split in describing the job prospects as good and poor. Most agreed that work needed to be done, but they wondered where the funds would come from. The one's who described the prospect as good based that on "an emphasis on long term planning", "need to document the job they are doing", "providing services throughout the state", and "good on a consultant basis". The

respondents that thought job prospects were poor commented that it was basically a problem of "a strong need but little money". Some did not see jobs for the "straight evaluator/researcher at the individual school level, but rather at the division or state level". Thus, the residential school representatives generally saw a more positive picture for job prospects in the field in general than in their individual schools.

In other educational agencies, six of the eleven representative described job prospects positively, e.g., "expect to hire 3 to 10 people in the next 3 to 5 years", "moderately positive", "chances are good with research skills". Those with a more negative outlook again blamed the problem on inadequate funding. Seven of the respondents indicated a positive feeling about job prospects in the field in general, with one person predicting "a substantial increase in the need for competent people in evaluation and research".

In the telephone interview, respondents were also asked to indicate whether or not they would hire a hearing impaired person at their organization to do research and evaluation. Interestingly, only 3 of the 69 representatives reported that they would not consider hiring a hearing impaired person. One person reported that he did not have enough business to keep himself busy not to mention an intern also. Another respondent said that their office was too small to accommodate an intern and an interpreter also. The third one said that they already used law interns and that was sufficient personnel.

The respondents seemed to be more concerned with getting a qualified employee than with the person's hearing status. Several of the respondents raised issues similar to those discussed in relation to hiring a hearing impaired intern. They were concerned about the communication problems and who would provide an interpreter when it was necessary. Several indicated that they were "eager to hire" handicapped workers and that they had had hearing impaired people work for them before.

Summary and Conclusions

The purpose of this study was to determine the views of employers from a variety of job placement settings and disciplines concerning the critical skills for the research and evaluation professional, implications for training, and future job prospects. Through a phone survey of 69 employers of evaluation research personnel and a mail survey of a subset of 48 of those employers, information was obtained regarding the nature of the organization, the kinds of skills needed in research and evaluation, the respondent's background, interest in being an internship site, and future job prospects. The organizations surveyed represented consulting firms, private corporations, government agencies, residential schools for the deaf, other

educational agencies, and professional associations.

The results of the survey support the position that it is possible to identify a generic set of skills needed to do research and evaluation that apply across a variety of types of organizations. These include skills in traditional research methodology, evaluation, administration/communication, statistical analysis, and computer usage. In some settings, particular skills would be emphasized more than in others. For example, in residential schools, knowledge of deafness and sign language (except at an oral school) would be important. In some educational settings, knowledge of psychometrics or specific subject areas such as mathematics or reading would be important. Other organizations reported that it would be desirable to have expertise in such areas as social welfare, law, criminal justice, foreign languages, military, health, finance, personnel, and human relations skills. An interdisciplinary approach to teaching evaluation research would focus on the generic skills and allow enough flexibility to address these specific skill areas as well.

Sixty-two of the 69 respondents reported that they would be interested in having an intern work in their organization, whether the intern was normally hearing or hearing impaired. Their comments revealed a very positive attitude toward having a hearing impaired intern. The idea of having an intern who was knowledgeable about deafness and research and evaluation appealed to the respondents from the residential schools for the deaf and from various social service agencies. The respondents also stressed the need for prior planning and sufficient support services (in the way of interpreters) to insure that the internship experience is meaningful to the student and that the student is making a meaningful contribution to the organization. Education in deaf awareness may be needed in some organizations. The issue of paid versus non-paid internships needs to be worked out and possible sources of stipends need to be explored.

Projecting job openings is a difficult task, given that such openings are dependent on the availability of funds, economic growth, and attrition. However, even with this uncertainty, 59 percent of the respondents who were willing to speculate on this reported that they expected to be hiring evaluation research personnel in the next three years. Respondents in smaller professional associations were not optimistic about future job prospects. However, those in larger firms saw an increased need to be accountable to their public and thus were more optimistic in their outlook. Representative of the consulting firms, private corporations, and government agencies were generally positive with regard to future job prospects, e.g., "changes year to year, but looks good now", "20 to 30 jobs a year", "need to expand", and "more demand for skills to support programs". The representatives from the residential schools were mixed in their

opinions of future job prospects. They agreed that the work needed to be done, but wondered where the funds would come from. Job prospects were more positive in schools with an emphasis on planning and documentation of their services. In the other educational agencies, the picture was also mixed and was also blamed on the problem of inadequate funds. Seven of the eleven respondents from the educational agencies indicated a positive feeling about job prospects in the field in general. Overall, the results indicate a very receptive job market for both normally hearing and hearing impaired evaluators/researchers or for evaluators/researchers in the area of deafness.

Are the results biased because the agency conducting the study educates both normally hearing and hearing impaired students at the graduate level? The influence of such a bias might be demonstrated in a more restricted range of skills that employers thought a hearing impaired person could manage, or in more pessimistic projections regarding internships and job prospects. However, the list of skills that resulted correspond fairly well to those reported by other researchers (e.g., Davis, 1986b; Anderson & Ball, 1979; Maryak, Gray, Mehrens, & Lezotte, 1979). The prospects for internships and job placements were both very positive. This result may be more positive than would be found in other regions of the country because the study focused on the greater Washington, D.C. area. The multitude of government agencies, professional associations, and consulting firms provide a more hospitable climate for the research and evaluation professional. The results concerning internships and job placements might be replicated in other major metropolitan areas with a similar economic structure.

REFERENCES

Anderson, S.B. & Ball, S. (1979). Training evaluators and evaluating their competencies. In L. Sechrest, et al. (Eds.), Evaluation Studies Review Annual, (Vol. 4), Beverly Hills, CA: Sage Publications.

Conner, Ross F. (1986). The teaching of evaluation in interdisciplinary programs: U.C. Irvine. In B.G. Davis (Ed.), Teaching of Evaluation Across the Disciplines. New Directions for Program Evaluation, no. 29. San Francisco, CA: Jossey Bass.

Daudistel, H. & Hedderson, J. (1984). Training evaluation researchers: Tips on making it work. Teaching Sociology, 11(2), 167-181.

Davis, B.G. (Ed.) (1986a). Teaching evaluation across the disciplines. New Directions for Program Evaluation, no. 29. San Francisco, CA: Jossey-Bass.

Davis, B.G. (1986b). Overview of the teaching of evaluation across the disciplines. In B.G. Davis (Ed.), Teaching of Evaluation Across the Disciplines. New Directions for Program Evaluation, no. 29. San Francisco, CA: Jossey-Bass.

Fienberg, S.E. (1980). Quantitative training for evaluation research. New Directions for Program Evaluation, 8, 49-59.

Maryak, J.; Gray, D.; Mehrens, W.; & Lezotte, L.W. (1979). Educational program evaluation curriculum: The practitioner's viewpoint. CEDR Quarterly, 12(2), 8-12.

May, R.M.; Fleischer, M.; Scheirer, C.J.; Cox, G.B. (1986). Directory of evaluation training programs. In B.G. Davis (Ed.), Teaching of Evaluation Across the Disciplines. New Directions for Program Evaluation, no. 29. San Francisco, CA: Jossey Bass.

Payne, D. (1974). Curriculum Evaluation. Lexington, MA: Heath.

Sanders, J. (1979). On the technology and art of evaluation: A review of seven evaluation primers. Evaluation News, 12, 11-17.

Scriven, M. (1974). The program and product evaluation checklist. In G. Borich (Ed.), Evaluating Educational Programs and Products. Englewood Cliffs, NJ: Educational Technology Publications.

Stufflebeam, D., and others. (1971). Educational Evaluation and Decision Making. Itasco, IL: Peacock.

Worthen, B. (1975). Competencies for educational research and evaluation. Educational Researcher, 4, 13-16.

Worthen, B. (1978). Expertise needed in curriculum evaluation. Australian Educational Researcher, 5, 5-27.

Worthen, B. R. & Sanders, J.R. Content specialization and educational evaluation: A necessary marriage? Paper # 14 in Occasional Paper Series. Kalamazoo, MI: Western Michigan University Evaluation Center. ERIC ED 253 543

Wortman, P.M., Corday, D.S., & Reis, J. (1980). Training for evaluation research: Some issues. In L. Sechrest (Ed.), Training Program Evaluators. New Directions for Program

Evaluation, no. 8. San Francisco: Jossey-Bass.

APPENDIX

GALLAUDET RESPONSE CARD

SKILL RATING FORM

TELEPHONE INTERVIEW QUESTIONNAIRE

GALLAUDET COLLEGE

RESPONSE CARD

Company/Institution: _____

Contact Person: _____

Telephone Number: _____

Number and type of individuals who use evaluation/research skills:

LEVEL	ON-STAFF		ON CONSULTANT BASIS	
	Number	Field of Expertise	Number	Field of Expertise
Doctoral				
Master's				
Bachelor's				
Hired in '84				
Expect to hire in the next 5 years				

Sample fields of expertise: evaluation, education, business, statistics, computer programming, political science, public administration, psychology, anthropology, sociology, economics, other (please specify).

Would you be willing to participate in a 20-minute phone conversation to help us identify specific evaluation research skills that you look for in individuals you hire? ☐ Yes ☐ No

Please fold the response card so that the return address is on the outside. Staple or tape closed.

THANK YOU!

Please indicate the importance of the following skills for an evaluation research professional by checking the appropriate box using the following scale:

1 — Essential 2 — Desirable 3 — Not important

RESEARCH METHODS

Essential 1	Desirable 2	Not Important 3	
☐	☐	☐	1. Sampling
☐	☐	☐	2. Survey research
☐	☐	☐	3. Questionnaire construction
☐	☐	☐	4. Interviewing skills
☐	☐	☐	5. Content analysis
☐	☐	☐	6. Case studies
☐	☐	☐	7. Task analysis
☐	☐	☐	8. Experimental design
☐	☐	☐	9. Quasi-experimental design
☐	☐	☐	10. Time series design
☐	☐	☐	11. Observational research

EVALUATION

☐	☐	☐	1. Alternative models for evaluation
☐	☐	☐	2. Setting goals
☐	☐	☐	3. Cost-benefit analysis
☐	☐	☐	4. Grantsmanship
☐	☐	☐	5. Standards for evaluation (ethical, legal)
☐	☐	☐	6. Utilization of evaluation results
☐	☐	☐	7. Planning evaluations
☐	☐	☐	8. Assessment of program implementation
☐	☐	☐	9. Meta-evaluation
☐	☐	☐	10. Politics of evaluation
☐	☐	☐	11. Policy analysis
☐	☐	☐	12. Needs assessment

ADMINISTRATION/COMMUNICATION

☐	☐	☐	1. Proposal writing
☐	☐	☐	2. Expository skills (writing and speaking)
☐	☐	☐	3. Public relations skills
☐	☐	☐	4. Management skills
☐	☐	☐	5. Technical writing of reports
☐	☐	☐	6. Listening skills
☐	☐	☐	7. Consultation skills

STATISTICS/COMPUTER

Essential 1	Desirable 2	Not Important 3	
☐	☐	☐	1. Data preparation
☐	☐	☐	2. Construction of data bases
☐	☐	☐	3. Descriptive statistics
☐	☐	☐	4. Inferential statistics
☐	☐	☐	5. Correlation and regression
☐	☐	☐	6. Multivariate statistics
☐	☐	☐	7. Nonparametric statistics
☐	☐	☐	8. Quality control
☐	☐	☐	9. Elementary computer programming
☐	☐	☐	10. Advanced computer programming
☐	☐	☐	11. Use of canned programs
☐	☐	☐	12. Use of micro computer software

PSYCHOMETRICS

☐	☐	☐	1. Test construction
☐	☐	☐	2. Reliability
☐	☐	☐	3. Validity
☐	☐	☐	4. Application of tests (paper and pencil; situational; performance)
☐	☐	☐	5. Norm and criterion — referenced tests
☐	☐	☐	6. Selecting a measurement instrument
☐	☐	☐	7. Assessing a measurement instrument
☐	☐	☐	8. Interpreting test results
☐	☐	☐	9. Reactive concerns and unobstrusive measures

Please fold this form so that the return address is on the outside. Staple or tape closed.

THANK YOU!

INTERVIEW GUIDE FOR RESPONDENTS

This is (YOUR NAME) _____.
(Ask to speak to the contact person. If they are not available, ask for a good time to call back. Note that time in pencil on this sheet.)

(If you are able to talk to the contact person:)

I am calling from Gallaudet College concerning an evaluation research program that we are making plans to develop. I believe you received a questionnaire in the mail from us.

BRANCH 1

YES PEOPLE
(If the person responded to the first questionnaire and said that he/she would be willing to talk with us, say:)
You responded to our first questionnaire and indicated that you would be willing to talk with us about this a little bit more. Is now a good time to talk?
(If not, schedule a convenient time to call back and make a note of it.) (If yes, go to 1.1).

BLANK PEOPLE
(If the person responded to the first questionnaire and left blank the indication of being willing to talk with us, say:)
You responded to our first questionnaire and I was wondering if you would be willing to talk to me a bit more about it now?
(If not, say:)
What would be a more convenient time to call back? (Make a note).

1.1 BEGIN INTERVIEW

I want to minimize the amount of time that I take from you and maximize the outcome of our conversation, so to begin with, I want to briefly share with you our ideas of who an evaluator/researcher is and what such a person does.

We are operating from the definition of an evaluator as a person who can help an organization clarify its goals and determine how well the organization is meeting those goals. An evaluator/researcher uses the scientific method to collect and analyze data that is used to help clarify goals and to assess the extent to which a program or activity achieves its specified objectives. The evaluator/researcher's skills can be applied in schools in terms of evaluating individual needs and performance as well as at the program level. They can also be applied in market research or in establishment of new programs or

in projects involving survey research.

Could you give me an idea of the kind of program/activity your organization is involved in?

You say you have (pick this number up from the first questionnaire) individuals who do this kind of work. Could you describe for me the kind of work that these individuals do?

Would you give me one or two specific examples of evaluation/research projects/activities that are done at your organization?

Would it be important for an evaluator/researcher to be a content specialist in your organization?
What content areas of specialization would you be looking for (e.g., reading, economics, health, criminal justice, parent-child)?

I sent you a list of skills that might be important for an evaluator/researcher. Do you have that list in front of you?

Please take a moment to scan these. Are there any skills not listed that you think should be?

Would you complete the rating scale for the skills and mail it to me? Also, if you don't mind, would you write (the name of the company) on it so that we won't need to bother you again? Thanks.

A few last questions. Are you yourself trained in evaluation/research? What was the nature of your training?

Are you doing evaluation/research yourself? How many years have you been doing work in this area?

We think that practical experience is an important part of becoming a skilled evaluator/researcher. We plan to first teach the necessary skills to our students and then provide them with an internship to obtain this practical experience.

2.1 If the logistics could be worked out in an acceptable way, (i.e., supervision from a faculty member, timeliness) do you think there would be interest in having an intern from our program work in your organization? (IF YES TO 2.1, GO TO 2.2. IF NO TO 2.1, GO TO 2.4).
BRANCH 2

2.2 (IF YES TO 2.1:)
Could we come visit your organization and talk with you in more detail about what those logistics would be?

2.3 (IF YES to 2.2, schedule a time to visit). STOP. THANK YOU.

(IF NO to 2.2, ask:)
What would the process be for establishing an internship?
Who would we need to contact?

Some of our students might be hearing impaired. As you know, some hearing impaired people need an interpreter to function in the "hearing" world. Would your organization be willing to consider hiring an hearing impaired intern?

If we provided the interpreter?

2.5 What do you see as future job prospects for evaluation/research persons in the future at your organization?

Generally?

Would your organization be willing to consider hiring a hearing impaired graduate of our program?
If an interpreter was provided?

THANK YOU VERY MUCH.

2.4 (IF NO TO 2.1, SAY:)
What do you see as future job prospects for evaluation/research persons in the future at your organization? Generally?

Some of our students might be hearing impaired. As you know, some hearing impaired people need an interpreter to function in the "hearing" world. Would your organization be willing to consider hiring a hearing impaired graduate of our program? If an interpreter was provided?

THANK YOU VERY MUCH.